

GOES-16 MAG Level 1b Release, Beta Data Quality

June 12, 2017

Read-Me for Data Users

The GOES-R Peer Stakeholder Product Validation Review (PS-PVR) for MAG L1b Beta Maturity was held on May 25, 2017. The result of this review was the PS-PVR panel recommending that the MAG L1b data be included in the GRB. This was accomplished at 1617 UTC on June 1, 2017.

The L1b data products derived from MAG include:

Vector measurement of the geomagnetic field sampled at 10 Hz from the inboard and outboard magnetometers. Magnetic field data provided in coordinate systems other than the sensor frame are based on the outboard magnetometer.

The GOES-16 MAG Level 1b (L1b) Beta level data products are preliminary, non-operational data. These data are currently undergoing testing and initial calibration and validation. The user should be aware that these products are only at a Beta level of maturity. This means that the products are made available to users to gain familiarity with data formats and parameters in accordance with the GOES-R Product User Guide (PUG). Beta products have been minimally validated and may still contain significant errors. They are not optimized for operations or research and should not be used for these purposes. Users bear all responsibility for inspecting the data prior to use and for the manner in which the data are utilized.

Persons desiring to use the GOES-16 MAG Beta-maturity L1b products for any reason, including but not limited to scientific and technical investigations, should involve the responsible NOAA scientists before proceeding.

Known issues under work for resolution:

1. There are several contamination issues that may periodically introduce up to ~20 nT error in the measurement. The outboard magnetometer is less affected than the inboard magnetometer.
2. The spacecraft position (ECEF_X, ECEF_Y, ECEF_Z) is provided in ECI coordinates rather than ECEF.
3. Timestamps are occasionally out of order or set to zero.
4. Magnetic field data are occasionally set to the bias value.

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